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AUTHOR Tyas-Tunggal, Helen
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ABSTRACT

This paper describes the need for "learnscapes" on schoolgrounds. Learnscapes are places where a learning program has been designed to permit users to interact with an environment. They may be naturally built; inside or outside; located in schools, near schools, or beyond schools; relate to any one or many Key Learning Areas; and must be safe and accessible. The need for learnscapes in schools and the need for assistance in creating these learnscapes is discussed. A learnscape example is presented from Harwood Island Primary School, New South Wales. (SAH)

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# Hands On Learnscapes

**Helen Tyas-Tunggal - Australia**
Principal, Harwood Island Primary School - New South Wales

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Learning through LANDSCAPES Grounds for Celebration 21-24 September 1997 OECD OCDE D/EE

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# HANDS ON LEARNSCAPES

Helen TYAS TUNGGAL

THE PRESENTATION will give an overview of

* the establishment of Learnscapes as a series of 'ground up' projects driven by the social and educational needs of students,
* how the projects have been integrated across the curriculum,
* physical, social, educational and environmental benefits for communities,
* the achievement of multiple outcomes and goals of various interest groups and government agencies through accessing Labour Market Program funds and Environmental Grants,
* future plans to develop an infrastructure that will extend the development of school playgrounds across Australia.

I am aware of quite a few schools across various states in Australia which have been developing excellent environmental education programs using a 'hands on' approach. Having been the Principal of one such school for the last nine years (and due to time constraints)my presentation is based on the 'Harwood Island Primary School experience'.

In this age of analysing individual learning styles in order to enhance learning, I have realised that I am an experiential learner. This may help to explain why things have developed the way that they have. I am convinced that the lot of the experiential learner is that they must learn by their mistakes. In other words in hind sight the following types of problems could be avoided:

* lack of real planning in the early stages and 'ad hoc' development due to restricted knowledge and experience in the area of environmental planning
* lack of pre project documentation due to enthusiasm to get on with things rather than write it down (fortunately rescued by comprehensive record keeping)
* the ever necessary pre project and post project research labelled amongst other things as "Nine years of experiential research"

Fortunately I am blessed with the 'Pollyanna Syndrome' where every cloud has a silver lining. Each little obstacle becomes a practical problem solving exercise. By harnessing these situations in a positive way to facilitate student learning, everyone can benefit.

When I accepted a promotion as Principal to Harwood Island I arrived with a wide variety of teaching experiences, most of them requiring me as a teacher to cater for individual differences of students in mixed ability or multi grade classes. I had also had experience teaching teachers as a K-7 Music Consultant and then a K-12 Consultant for Multicultural and Aboriginal Education for the NSW Department of School Education.

I arrived at Harwood at a time when the school was seriously under resourced and teaching and learning programs needed expansion and resourcing. As well as running the school I had full time responsibility for teaching a Years 4/5/6 class. I found the students to be reluctant writers and set about finding ways to get them more enthusiastic about writing. Student committees were formed to encourage writing with a purpose. They were encouraged to take on projects within the school environment and of course they were all keen to get outside. It wasn't long before their communication went beyond the immediate environment in order to find solutions to the problems they found themselves faced with.

Meeting procedures, needs analysis techniques, developing action plans, group decision making techniques and 'thinking out loud' were modelled through whole class activities.

One possible way of briefly summarising the Harwood Experience for this paper was to peruse media cuttings for inspiration. As I scanned I was amazed.

| | |
|---|---|
| August 16 1988 | School a credit to pupils |
| | A proud crew |
| | Students earn grant for school pond |
| | Students cash in on load of old rubbish to plant a rainforest |
| | School recognised for feats |
| | School awarded special certificate |
| | Detailing the environment |
| | Island school a learning model |
| | Harwood an educational model |
| | Students share a chance to learn |
| | Co-operative learning at its best |
| | Harwood Island kids rapt in eco-mmessage |
| | Junk food is out with Harwood students |
| September 16 1993 | Youth jobs up for grabs in new landcare project |
| | Environmental Education "Rubs off" on Student Teachers |
| | Students LEAP into program |
| | Harwood school takes first LEAP |
| | School gets a buffer to the world |
| | First school in LEAP project |
| | Environmental course run by students |
| | Harwood leads the world |
| | Harwood Island Students recycle fashion |
| | Students chosen for environment conference |
| | Harwood students fly to environmental conference in England |
| | Eyes of the world on Harwood |
| | An international exchange |
| | Life is the teacher at Harwood Island |
| | School impresses 'star' visitor |
| | Rivercare 2000 Projects Honoured |
| October 24 1996 | Gold Reward for Green Achievements at Harwood |

Just a mere reading of the headings unfolds a developmental story with each experience being built upon the previous ones. The learning curve is phenomenal.

I would like to share a brief selection

School a credit to pupils Daily Examiner August 1988

After a critical study of Harwood Public School and its grounds pupils constructed a number of new gardens and cleaned up untidy areas.....

The children of Harwood Island have come out on top once again impressing judges in the Maclean Shire Tidy Schools competition with their enthusiasm and planning.....the judges were amazed at the way in which the children went around the project.....included attacking a number of untidy areas in the business premises next door.

The children apparently wanted to demand that the untidy property should be cleaned up. We gained a good lesson in diplomacy when they were told they didn't have the power to order, but should see how a polite request would be received.

To their amazement, the response was excellent and in fact the area was tidied up.

Island school a learning model Coastal Views October 15 1992

At 3.30 on an unseasonally hot spring afternoon most children are taking relief in the shade of trees.....Except for two senior girls.

In the corner of the now deserted classroom they quietly work at a computer.They write a letter, have it printed out and without fuss put one copy in a large project folder and prepare the other for post.

The computer is closed down and the girls leave quickly to catch the bus.

The letter they wrote was to a Green Smile Day Committee which accused Harwood Island School Greening Committee of not paying its account.

The students reply stated that not only had the committee paid, but also the date and cheque number....

Such small incidents are an everyday occurrence at Harwood where students have a large say in projects their school undertakes and an even larger part in implementing them.

Chief desire was to work towards an atmosphere which allowed independence as well as fostering cooperation and involvement....

.....received the Gould League Award and $1500 prize for the design and implementation of a recycling management plan for the school and its community

At a recent seminar students told teachers from throughout the region how they manage their role in the school and why they enjoy their education.

Visitors gave high praise...."The responsibility, skills and confidence your children demonstrated clearly justifies your approach."

"It is obvious that this program is not contrived but is clearly child centred with students having real input and autonomy. The teachers are facilitators, guides and arbitrators and so the students have ownership of their ideas, plans and ventures. It is truly inspirational"

"It was terrific to see this holistic approach to learning based around an area as important as the environment - the kids are obviously going to benefit in the long run".....

Cooperative Learning at its best NSW School Education News 1993

Students...are learning to cope with the demands of the future through a unique learning approach encouraging self direction.

The students are completely self motivated and are developing an array of work related competency skills....

They were working quietly in committee groups set up to help run the school.

The committees, Greening, Library, Recycling, Tuckshop and Photos, Files and Faxes, are organised by the students and they run like well oiled machines.

The students are learning efficiency skills. They write letters, send faxes, make phone calls, answer enquiries and generally ensure their areas of responsibility are managed effectively.

The basic thrust of the school's philosophy is learning with a purpose and in everything the students do, they are striving for a tangible result

If they write a letter it is a real document related to a real issue and it will be sent to the person concerned.....

There is an emphasis on problem solving and creative thinking and the development of personal and interpersonal skills.

Harwood School takes first LEAP Daily Examiner March 28 1994

A public ceremony ....will mark the dedication of the first school based LEAP (Landcare and Environmental Action Program) undertaken in Australia.

The project utilising more than $100 000 of funds and a staff of unemployed young people, involved construction of an environmental buffer zone....

Apart from guaranteed on-the-job training and income for six months, participants undergo an education program which includes conservation concepts, job seeking skills, business calculations and communications.

Tomorrows dedication day has been organised by senior students at the school.
"This project belongs to the students. They have been greatly involved with the grant application, writing letters to businesses and organisations seeking support and planning how they would like the new area developed."
A committee of students was formed to manage their side of the project and keep an accurate record of progress.

Life is the teacher at Harwood Acres AUSTRALIA March 1996
The National Newspaper for sustainable agriculture

What would you say about a school where the students are responsible for large parts of the program, and which has an architect designed tree house the size of a normal classroom? "Cool" might be one response. "What?" might be another. Such a school does exist.
..received a $1000 Greening Schools grant for a "Bush Lifestyle "project based around native plants with bush tucker and other uses.
..also successful in obtaining a $30 000 ,,,grant for staff..and several other educators from across the state to write "developmental and sequential units on environmental concepts from kindergarten to Year 12.
The school is now almost surrounded by plantings and environmental enhancements of one sort or another...
"Learning through life" involves the real world, and real situations.....
It might mean applying maths , oral skills and group participation skills to balancing the books of the canteen which the students run one day a week, or using a whole stack of maths, science and language skills to research and plan various environmental activities for which the school has become recognised throughout Australia.
The school is now developing a freshwater wetland in a gully which until recently was a largely disused area harbouring weeds and vermin.
Now the gully, after considerable earthwork, is planted to wetland species and a pond has been created and stocked with a variety of native fish.
The wetlands project.....is being helped by a $2800 Rivercare grant .

Why has so much interest been generated ?

The answer is simple. Outcomes in the areas of student learning, teacher learning, improvement to the environment, community awareness and a variety of government environmental and labour market training goals can be achieved very effectively using an integrated holistic approach with real life situations.

A more orthodox account of what has been happening has been published in the "Environment Schools Project" recently published and widely distributed by the NSW Department of School Education. Harwood Island is used as an example.See *Appendix 1*

During 1996 with funding an Environmental Trust grant a team of practising teachers developed the 'Hands on Learnscapes ' Program using Harwood Island as the model.
In this program the authors wanted :
* a mimumum sequence of learning activities which satisfied the NSW Environmental Education Curriculum Statement
* first hand experiences in the child's environment - "knowing our land"
* to promote an understanding of the big ecological picture i e how does our planet work?
See *Appendix 2* and the Hands on Learnscapes video.

During 1997 David Capp and I have been pursuing the possibility of extending the concept of Learnscaping across a wider range of schools. See *Appendix 3* "Proposed Assistance Towards the Development of School Grounds as Learnscapes."

# Hands on Learnscapes

**Proposed Assistance Towards the Development of School Grounds as Learnscapes**

## INTRODUCTION

### School Grounds

Australian public schools are set on grounds totalling many thousands of hectares. The land is government owned and financial constraints and other priorities have restricted the care and attention given to this community asset over many years. In NSW alone, State owned school sites and associated land totals 7,720 hectares.

The land around schools is an important environment for children, many of whom still spend their time outside at school in uninviting places that can be hot and dusty and often paved in concrete. It has been demonstrated that school grounds can profoundly affect the behaviour, performance and attitude of young people

### The Need for Assistance

There is now a growing interest amongst school communities in seeking access to processes in which school grounds might be developed to provide environmentally appropriate, safe and accessible places to facilitate student learning as well as improving the visual environment and reducing maintenance costs.

With few exceptions, schools do not have the staff, skills or financial resources to develop their school grounds. Those schools that have achieved some success have relied on the dedication of one or two staff members who were prepared to take on the task in addition to their normal duties and the efforts of volunteer parents.

It is evident that there is a requirement for the provision of a service to assist schools with these processes. As a first step, a structure is needed to plan and access the funding and the infrastructure necessary to implement projects aimed at assisting schools with the development of their grounds .

## LEARNSCAPES

### The Concept of Learnscapes

Learnscapes are places where a learning programme has been designed to permit users to interact with an environment. They may be natural or built, interior or exterior and may be located in schools, near schools or beyond schools, may relate to any one or many Key Learning Areas and must be safe and accessible.

For some years teachers in the Key Learning Areas have used reality or concrete objects in the school grounds or beyond to assist students to understand abstract concepts. Since environmental awareness became a curriculum priority a number of schools have been involved in projects to increase the diversity of the school grounds and buildings by adding features such as gardens, forests, ponds, shelters and outdoor classrooms. The increased diversity of the grounds and buildings allow a wider range of learning experiences to be designed and the environment becomes a learnscape.

PO Box 40, MACLEAN NSW AUSTRALIA Ph/fax: 02 6645 4439 E-mail: davidc@mor.com.au

In other words, rehabilitation projects, revegetation programmes, tree planting schemes and other forms of landscaping should now be developed with a broader purpose - to enhance student learning through their active participation in the project or by creating new learning spaces where students can learn more effectively and enjoyably.

**A Learnscape Example - Harwood Island Primary School**

Harwood Island Primary School on the North Coast of New South Wales has around 80 students and a full time teaching staff of 3. Extensive plantings of rainforest and other native trees in the school grounds include landscaped open learning areas, walking tracks and a restored wetlands. This work was undertaken over a period of 8 years by students and staff and during two government funded LEAP projects one of which also utilised funds provided under and the NSW Government Rivercare programme.

Since 1991 the school has been recognised as a Centre of Excellence for Environmental Education. In 1990 it won The Sydney Morning Herald Project Environment Prize for designing and implementing a recycling management plan for the school and its community and in 1996 won a Rivercare 2000 Gold Award for its Wetlands Restoration Project.

The work that has been carried out at Harwood Island Primary School is also recognised internationally. The retiring School Principal, Helen Tyas Tunggal, has accepted an invitation to deliver a paper at an international conference on school grounds being jointly organised by the OECD and the UK Government to be held in the United Kingdom in September 1997. Participants at the conference will contribute to recommendations to be made to OECD member governments on School Ground Development.

**The Hands on Learnscapes Project**

Visitors to Harwood Island Primary School would often ask about the process of initiating environmental projects and education activities and many teachers indicated that they were seeking practical guidance and user friendly resources. As a result, a project aimed at completing and expanding the existing resources and facilities to the extent that they might be shared with a much wider and more diverse target audience was conceived.

In 1995 the school was awarded an Environmental Trusts Grant from the NSW Environmental Protection Authority to write learning programmes based on the schools many environmental features. Work began early in 1996 on the development of a package containing environmental teaching units and a support video for use by primary and secondary schools, teacher training institutions and Landcare, Rivercare and other community environmental groups. The programmes are designed to turn the school environment into a learnscape and can be applied in any school context.

The authors of the programmes were practising teachers who aimed for:

- a minimum sequence of learning experiences which satisfied the NSW Department of School Education Environmental Education Curriculum Statement Years K-12;
- first hand experiences in the child's environment, "knowing our land";
- understanding of the big ecological picture, "How does our planet work?"

The overall objective of the package is the promotion and extension of environmental awareness and understanding with an emphasis on conservation principles, concepts and values underlining the need for sustainable future land use. Harwood Island Public School is used in both the teaching units and the video to demonstrate what can be achieved by those



PO Box 40, MACLEAN NSW AUSTRALIA. Ph/fax: 02 6645 4439. E-mail: davidc@mor.com.au

who are prepared to make the effort and as a model for other schools, institutions and individuals to follow.

## BACKGROUND TO THE PROPOSED ASSISTANCE PROGRAMME

### Government Assistance

Over the past few years, some schools were able to develop their grounds by accessing government funded Labour Market programmes such as the Landcare and Environment Action programme (LEAP) and the Regional Environment Employment Project (REEP) which provided labour and funding assistance for equipment and materials. Many schools were in the process of applying for sponsorship of projects funded under these programmes when funding was withdrawn early in 1996.

As an indication of the interest in these programmes, at the time that funding was withdrawn, the following public schools in the North Coast Region had applied and their applications were at a late stage in the approval process:

> Byron Bay Primary, Lennox Head Primary, Maclean Primary, Modenville Primary, Mullumbimby Primary, Ocean Shores Primary, Southern Cross K-12 and Teven/Tintenbar Primary.

The following schools were in the process of preparing applications or had indicated that they would be applying in 1996:

> Alstonville High, Ballina High, Ballina Primary, Burringbar Primary, Byron Bay High, Gillwinga Primary, Grafton Primary, Mullumbimby High, South Grafton High, Tyalla Primary, Wardell Primary, Wollongbar Primary, Woodburn Central and Yamba Primary.

Copies of the project proposals from the above schools are still held on file.

### The UK Model - Learning Through Landscapes

Learning Through Landscapes (LTL) was established in 1990 as an independent national charitable trust promoting improvements to the educational use and environmental quality of school grounds in the United Kingdom for the benefit of children. It acts to safeguard the school environment and enables schools to make improvements to the design and use of their land for the benefit of students and the whole community. Support for this work is provided by private sector sponsorship, government grants and volunteers. As a registered charity, private sector sponsorship is tax deductible.

LTL has carried out considerable research into the benefits schools gain from developing their sites and has looked at why some developments are more effective than others. The research has shown that benefits include:

- the creation of additional resources which support and extend all aspects of the curriculum, enabling more effective teaching and learning outcomes;
- a reduction in accidents and incidents of boredom, bullying and vandalism;
- the development of an ethos of care, ownership and responsibility by the whole school community;
- improvements to the quality of the environment and, hence, to the appearance, image and popularity of the school.



PO Box 40, MACLEAN NSW AUSTRALIA Ph/fax: 02 6645 4439 E-mail: davidc@nor.com.au

LTL's research has also shown that most successful developments result from a process of change which is:

- sustainable - involving the ongoing consideration of the use, design and management of school grounds;
- holistic - involving the whole site, the whole community and the whole curriculum, i.e. its formal, informal and hidden dimensions;
- participative - involving children with adults in all aspects.

**PROPOSED PROGRAMME**

At a time when Australian governments are rationalising and downsizing, schools are being subjected to funding cuts and increasing workloads and responsibility for staff allowing less time for non-essential activities. In this climate, it is unlikely that State Education Departments would devote resources to learnscape development.

Learnscape development on any scale larger than the ad hoc arrangements applying at present requires a structure to plan, access funding and support infrastructure and oversee the implementation of projects. Funding access including involvement in programmes such as the proposed work-for-the-dole scheme would also benefit from the sponsorship of an organisation with established credentials in the field of school grounds and learnscape development. No such organisation exists in Australia at present.

A preliminary approach was recently made to LTL in the United Kingdom seeking assistance with the establishment of an organisation along similar lines to theirs or an arrangement to extend their activities to Australia. Their reply was positive and they have asked for further details of our proposed programme to support the development of school grounds. The proposal set out below will form the basis of our response.

It is proposed that:

(a) the establishment of a programme of pilot learnscape development projects at 3 schools on the NSW North Coast be initiated by the undersigned using the networks of expertise and support that are currently available in this Region;

(b) the most appropriate and accessible source of funding for the proposed pilot projects be investigated including:

Proposed work-for-the-dole scheme;
Green Corps programme;
Natural Heritage Trust;
NSW Environmental Protection Authority, Environmental Trusts;
NSW Department of School Education;
Landcare programme.

(c) the infrastructure to support the pilot projects be established in such a way that the programme may be extended to other schools, Regions and possibly States in the longer term if appropriate.

(d) the resources and experience of the UK based Learning Through Landscapes be accessed where possible to enhance the quality of the programme.

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**CONCLUSION**

It is inevitable that the increasing interest in the development of school grounds will result in other moves in a similar direction to that proposed above. This proposal seeks to initiate action towards meeting the demand which has already been identified and to utilise the skills, expertise and experience in administration and training in this field that has been built up over the past 5 years on North Coast of NSW.

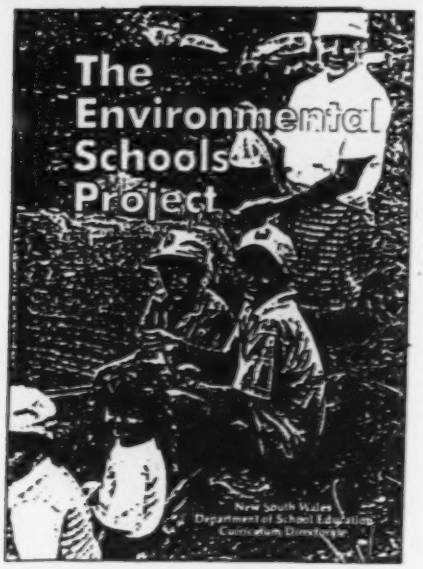
By establishing such a programme, a range of goals could be achieved appropriately with funding from one source. The programme would be particularly compatible with the proposed work-for-the-dole scheme where it would provide training and work experience for the unemployed during their participation in the development of government owned community assets for the future and the enhancement of schools as centres of learning. Additional benefits would flow to the community through an increased sense of ownership and a decrease in costs to government resulting from vandalism.

It is important that the co-ordination of school grounds and learnscape development should be in the hands of an organisation dedicated to this work and not become an additional activity of an organisation with other functions and priorities.

Helen Tyas Tunggal
David Capp
(Hands on Learnscapes Project Co-ordinators)
9 June 1997



PO Box 40, MACLEAN NSW AUSTRALIA Ph fax: 02 6645 4439 E-mail: davidc@nor.com.au




## Some examples of environmental education projects

### Harwood Island Primary School

Harwood Island Primary School, with an enrolment of 83 and teaching staff of three, is a centre of excellence for environmental education. Environmental thinking is part of the student culture. How has this been achieved?

Students' environmental awareness comes as a result of their developing literacy and numeracy skills through an environmental program. Additionally, students are empowered to plan and become actively involved in energy reduction and the reduction, reuse and recycling of materials and water within the school. Life skills, working cooperatively and problem-solving are emphasised.

In 1988 a needs analysis of groups within the school was undertaken. As a result, children were asked to brainstorm ideas for what they wanted in the school. The principal realised that the children's ideas could be addressed through a cross-curricular perspective such as environmental education. The environmental projects which the children themselves suggested became the vehicle for purposeful learning and were integrated across all key learning areas. The ideas were prioritised. Children had ownership of the ensuing environmental projects and were therefore motivated to work on them.

The things which children wanted included a jungle, secret places and a frog pond. Children's solutions to the problem of fund raising included such environmental projects as growing and selling vegetables, running a green canteen (where children make healthy specials cheaper, debate issues such as packaging and cleaning materials and make submissions to the P&C), setting up a lucrative recycling business and winning a prize for their efforts. They also shredded paper and used this for mulch and composting and then sold the surplus. They also applied for grants of money to undertake specific groundwork and plantings. Children wrote the submissions, planned the improvements, calculated their needs in terms of materials and finance, wrote to suppliers, used the telephone, fax and computers as required and documented their achievements. Record-keeping, including photos and reports, helped develop the student culture of positive environmental attitudes.

*Harwood Island Primary School students and parent helper*

## Organisation

Many of the projects are now run by student **committees**. The projects include recycling, greening of grounds, library and tuckshop. The Photos, Files and Faxes Committees organise publicity and students meet weekly. Originally committees were set up to give students a purpose to their writing. Committee meetings are modelled in whole-class situations. Committees are taught to recognise problems, prioritise, handle correspondence, organise an action plan, keep minutes and write regular reports for the school newsletter.

*Weeding and mulching in the wetlands area at Harwood Island Primary School*

Peer support groups meet regularly. Each group has an area of responsibility in the playground. As part of the Peer Support Program, the facilitating teacher prepares a "Horticulture" lesson which includes, for example, mathematics and science activities, reflections on achievements and a range of practical tasks which are appropriate to the ability of the child. The peer support group structure is important in developing the student culture of environmental caring.

**Recognition** of effort is important. The achievements of the various committees are seen as achievements of the whole school. Recognition from outside the school includes a Gould League prize for recycling, four Tidy Schools prizes from Maclean Shire Council, a North Coast award for their "5 Star Healthy Food tuckshop" as well as many more, culminating in a student presentation which took place at the International Children's Conference on the Environment in England in 1995.

**Reflection** is important. Children are required to reflect on the processes they have used and to report on what they did.

**Visualisation** is encouraged. Children draw up lists of what the school is already doing and are then encouraged to think about what more could be done.

Help from people in the community with special expertise is sought by children where they see value in community participation.

**Monitors** are responsible for such jobs as helping newcomers sort their rubbish, checking lights and equipment (children facilitated the reduction of energy costs in the school by one-third), and ensuring gardens are watered. They report back to the whole school.

**Special events.** World Environment Day, Water Week, Bike Week, Streamwatch, Bug Counts, Wattle Day and Arbor Week are celebrated on a whole-school basis. They are used as a focus of practical activity and integrated across the key learning areas. These days unify the children's positive environmental attitudes. Development of a wetland, organised by the children, was associated with Water Week and a grant from the Department of Land and Water Conservation. All storm water from the school is directed into the wetland. The children understand the need to keep this water clean. In this case valuable spinoffs have accrued. The area now attracts waterfowl and has a resident population of frogs and native fish.

Ensuring parents and the local community are aware of the educational benefits of the environmental programs will facilitate their success.